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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/587,988	03/05/2007	Ulrich Pegelow	H05842 (13744*16)	6441

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EXAMINER	
SCOTT, ANGELA C	

ART UNIT	PAPER NUMBER
1796	

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03/25/2009	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/587,988	PEGELOW ET AL.	
	Examiner	Art Unit	
	Angela C. Scott	1796	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *08 December 2008*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,19-41 and 43-46* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,19-41 and 43-46* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Applicant's response of December 8, 2008 has been fully considered. Claims 1, 22, 23, 27-31, 39, 41, 43, and 46 are amended and claims 18 and 42 are cancelled. Claims 1, 19-41, and 43-46 are pending.

Claim Rejections - 35 USC § 103

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claims 1, 19-24, 32-34, 38-41, and 43-46 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tartakovsky et al. (WO 99/05248).

Regarding claims 1, 19-23, 38-39, and 43, Tartakvosky et al. teaches a solid dishwashing detergent (Page 1, lines 5-15) comprising about 1% to about 40% by weight of sodium percarbonate (bleaching agent) (Page 20, lines 10-20), from about 0.5 to 30 % by weight of a non-ionic surfactant (Page 32, lines 29-31), and 0.1 to 20% by weight (Page 16, line 1) of a water soluble cationic polymer (Page 5, line 10) with a molecular weight from about 1000 to about 10^7 (Page 15, lines 31-32).

Tartakvosky et al. does not teach explicitly that the weight ratio of the non-ionic surfactant to the cationic polymer is between 35:1 and 75:1. However, Tartakvosky et al. does teach that the non-ionic surfactant is taught in a range of 0.5 to 30% by weight and that the cationic polymer is contained in a range of 0.1 to 20% by weight, more preferably 0.5 to 10% by weight. These ranges each overlap with the claimed ranges above and therefore the claimed ratios are taught as well. It is common practice in the art to optimize result effective variables, such as the concentration of components (MPEP §2144.05). At the time of the invention, a person of ordinary skill in the art would have found it obvious to optimize the amounts of the non-ionic surfactant and the cationic polymer to each other and would have been motivated to do so in order to achieve a good balance between the anti-corrosion effects of the polymer and the wetting effects of the surfactant.

Regarding claim 24, Tartakvosky et al. additionally teaches that the non-ionic surfactant can be of the general formula

$$R^{15}O(CH_2CH(CH_3)O)_j(CH_2CH_2O)_kCH_2OHR^{16}$$

wherein R^{15} is a linear, aliphatic hydrocarbon radical having from about 4 to about 18 atoms including mixtures thereof; and R^{16} is a linear, aliphatic hydrocarbon radical having from about 2 to about 26 carbon atoms including mixtures thereof; j is an integer having a value of from 1 to about 3; and k is an integer having a value from 5 to about 30 (Page 28, line 25 to Page 29, line 5). R^{15} corresponds to R^1, R^{16} to R^2, j to x, and k to y.

Regarding claim 32-34, Tartakvosky et al. teaches preparing a tablet (molded body), which is a preconditioned unit dose, from the detergent composition (Page 37, line 4). Tartakvosky et al. does not explicitly teach that the dose comprises between 0.5 and 4 grams, preferably between 1.5 and 2.5 grames, of the non-ionic surfactant. However, Tartakvosky et al. does teach the claimed weight percentages of the surfactant and the amount in grams should fall within this percentage.

Regarding claim 40, Tartakvosky et al. additionally teaches that the cationic polymer comprises monomer units of an ethylenically unsaturated compound as described by formula I

$$HR^2C=CR^1R^3$$

wherein R^1 is hydrogen, hydroxyl, or a C^1 to C^{30} straight or branches alkyl radical; R^2 is hydrogen, a C^1 to C^{30} straight or branched alkyl, a C^1 to C^{30} straight or branched alkyl substituted aryl, aryl substituted C^1 to C^{30} straight or branched alkyl radical or a poly oxyalkene condensate of an aliphatic radical, and R^3 is a heteroatomic alkyl or aromatic radical containing either one or more quaternerized nitrogen atoms or one or more amine groups having a pK_a of about 6 or greater and a positive charge over a portion of the pH interval pH 6 to 11 (Page 5, lines 10-27)

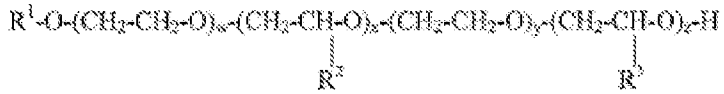
Regarding claim 41, Tartakvosky et al. additionally teaches that the polymer can contain co-poly diallydimethylammonium salt as a monomer unit (Page 11, line 2).

Regarding claims 44-45, Tartakvosky et al. additionally teaches that the detergent contains a water-soluble phosphate builder in an amount of from 1 to 90% by weight (Page 7, lines 16-18).

Regarding claim 46, Tartakvosky et al. teaches a machine dishwashing method of treating soiled glassware with an aqueous solution having dissolved or dispensed therein an effective amount of the detergent of the invention (Page 37, lines 20-25. Tartakvosky et al. does not explicitly teach that to then rinse the glassware. However, it is known that the washing cycles in dishwashers rinse the dishes after they have been washed.

Claims 25-28 and 35-36 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tartakovsky et al. (WO 99/05248) as applied to claim 1 above, and further in view of Holderbaum et al. (US 2003/0166493).

Regarding claim 25, Tartakovsky et al. teaches the basic detergent of claim 1. Tartakovsky et al. does not teach the non-ionic surfactant of the formula described in claim 25. However, Holderbaum et al. does teach a non-ionic surfactant for dishwashing detergents corresponding to the general formula:



in which R^1 is a linear or branched, saturated or mono- or polyunsaturated C_{6-24} alkyl or alkenyl group; the groups R^2 and R^3 independently of one another are each selected from CH_3, CH_2CH_3, $CH_2CH_2CH_3$, $CH(CH_3)_2$; and the indices w, x, y, and z independently of one another stand for integers of 1 to 6 (¶143-144). Tartakovsky et al. and Holderbaum et al. are analogous art because they are from the same field of endeavor, namely that of solid form dishwashing detergents. At the time of the invention, a person of ordinary skill in the art would have found it obvious to use this non-ionic surfactant, as taught by Holderbaum et al., in the detergent, as taught by Tartakovsky et al., and would have been motivated to do so because this non-ionic surfactant and the ones taught in Tartakovsky et al. are functional equivalents and it would be obvious to select one over the other. In fact, Holderbaum et al. teaches the same non-ionic surfactant disclosed in claim 24 above (¶157-158) and teaches that either of them can be used in the detergent.

Regarding claims 26-28, Tartakovsky et al. teaches the basic detergent of claim 1. Tartakovsky et al. does not teach the non-ionic surfactant of the formula described in claims 26-28. However, Holderbaum et al. does teach a non-ionic surfactant for dishwashing detergents corresponding to the general formula:

$$R^1O[CH_2CH(R^3)O]_x[CH_2CH(OH)CH_2OR^2]$$

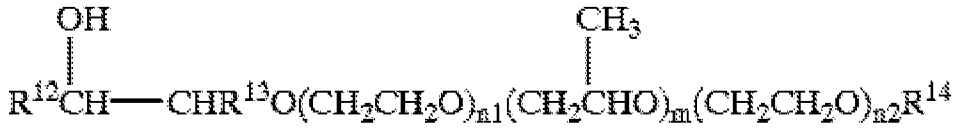
in which R^1 and R^2 are linear or branched, saturated or unsaturated, aliphatic or aromatic hydrocarbon radicals containing 1 to 30 carbon atoms; R^3 stands for hydrogen or for a methyl,

ethyl, n-propyl, isopropyl, n-butyl, 2-butyl or 2-methyl-2-butyl radical; and x has a value of 1 to 30. In this case, the R^2 in the claim is represented by the entire contents of the second brackets which contain a hydroxyl group and an ether functionality. At the time of the invention, a person of ordinary skill in the art would have found it obvious to use this non-ionic surfactant, as taught by Holderbaum et al., in the detergent, as taught by Tartakovsky et al., and would have been motivated to do so because this non-ionic surfactant and the ones taught in Tartakovsky et al. are functional equivalents and it would be obvious to select one over the other. In fact, Holderbaum et al. teaches the same non-ionic surfactant disclosed in claim 24 above (¶157-158) and teaches that either of them can be used in the detergent.

Regarding claims 35-36, Tartakovsky et al. teaches the basic detergent of claim 1. Tartakovsky et al. does not teach that the molded body is a multiphase molded body or that it is a mono- or multiphase tablet with a filled cavity. However, Holderbaum et al. does teach producing single-phase and multiphase tablets and single-phase and multiphase tables with a cavity (¶30). At the time of the invention, a person of ordinary skill in the art would have found it obvious to have the molded body, as taught by Tartakovsky et al., in these forms, as taught by Holderbaum et al., and would have been motivated to do so because the different phases, including the filled cavity, allow for different "parts" of the detergent to remain separated until the time for them to be mixed in the wash cycle while still allowing for all of the advantages of the tablet such as ease of dosing and handling.

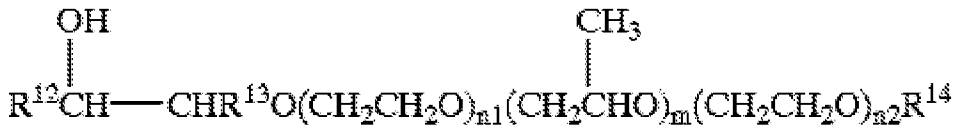
Claims 29-31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tartakovsky et al. (WO 99/05248) as applied to claim 1 above, and further in view of Kischkel et al. (US 2003/0114348).

Regarding claims 29, Tartakovsky et al. teaches the basic detergent of claim 1. Tartakovsky et al. does not teach the non-ionic surfactant of the formula described in claim 29. However, Kischkel et al. does teach using a hydroxy mixed ether as a non-ionic surfactant in dishwashing detergents. The hydroxy mixed ether is of the general formula:



in which R^{12} is a linear or branched alkyl radical having 2 to 18 carbon atoms; R^{13} is hydrogen or a linear or branched alkyl radical having 2 to 18 carbon atoms; R^{14} is a linear or branched alkyl and/or alkenyl radical having 1 to 22 carbon atoms, n1 and n2, independently of one another, are 0 or numbers from 1 to 60, and m is 0 or numbers from 0.5 to 5, with the provisos that the sum of the carbon atoms in the radicals R^{12} and R^{14} is at least 6 and preferably 12 to 18, and the sum (n1+m+n2) is different from 0 (¶34-35). In this claim, R^{14} corresponds to R^1, R^{12} corresponds to R^2, R^{13} is hydrogen, n1 corresponds to x, and m and n2 are 0. Tartakovsky et al. and Kischkel et al. are analogous art because they are from the same field of endeavor, namely that of solid dishwashing detergents. At the time of the invention, a person of ordinary skill in the art would have found it obvious to use this non-ionic surfactant, as taught by Kischkel et al., in the detergent, as taught by Tartakovsky et al., and would have been motivated to do so because this non-ionic surfactant and the ones taught in Tartakovsky et al. are functional equivalents and it would be obvious to select one over the other. In fact, Holderbaum et al. teaches the same non-ionic surfactant disclosed in claim 24 above (¶34-35) and teaches that either of them can be used in the detergent.

Regarding claims 30-31, Tartakovsky et al. teaches the basic detergent of claim 1. Tartakovsky et al. does not teach the non-ionic surfactant of the formula described in claims 30-31. However, Kischkel et al. does teach using a hydroxy mixed ether as a non-ionic surfactant in dishwashing detergents. The hydroxy mixed ether is of the general formula:



in which R^{12} is a linear or branched alkyl radical having 2 to 18 carbon atoms; R^{13} is hydrogen or a linear or branched alkyl radical having 2 to 18 carbon atoms; R^{14} is a linear or branched alkyl and/or alkenyl radical having 1 to 22 carbon atoms, n1 and n2, independently of one another, are 0 or numbers from 1 to 60, and m is 0 or numbers from 0.5 to 5, with the provisos that the sum of the carbon atoms in the radicals R^{12} and R^{14} is at least 6 and preferably 12 to 18, and the sum (n1+m+n2) is different from 0 (¶34-35). In this claim, R^1 corresponds to R^{14}, R^2 corresponds to R^{12}, R^{13} is hydrogen, n1 is 0, m corresponds to y, and n2 corresponds to x. . At the time of the invention, a person of ordinary skill in the art would have found it obvious to use this non-ionic surfactant, as taught by Kischkel et al., in the detergent, as taught by Tartakovsky et al., and would have been motivated to do so because this non-ionic surfactant and the ones taught in Tartakovsky et al. are functional equivalents and it would be obvious to select one over the other. In fact, Holderbaum et al. teaches the same non-ionic surfactant disclosed in claim 24 above (¶34-35) and teaches that either of them can be used in the detergent.

Claim 37 is rejected under 35 U.S.C. 103(a) as being unpatentable over Tartakovsky et al. (WO 99/05248) as applied to claim 1 above, and further in view of Smith (US 2003/0224959).

Tartakovsky et al. teaches the basic detergent of claim 1. Tartakovsky et al. does not teach that the preconditioned unit dose is selected from the group consisting of a filled water-soluble container, a filled injection molded body, a filled cast body, and a filled film pouch. However, Smith teaches a detergent system in unit-dose from packaged in a water-soluble film wrap (¶2). Tartakovsky et al. and Smith are analogous art because they are from the same field of endeavor, namely that of dishwashing detergent compositions. At the time of the invention, a person of ordinary skill in the art would have found it obvious to use a water-soluble film wrap, as taught by Smith, to package the detergent composition, as taught by Tartakovsky et al., and would have been motivated to do so because the consumer wouldn't have to touch the detergent tablet itself, they would be handling the outer packaging. Additionally, if the tablet were to break apart in transit, it would be contained within the film wrap.

Response to Arguments

Applicant's arguments filed December 8, 2008 have been fully considered but they are not persuasive.

Applicants argue that the Tartakovsky reference teaches away from the claimed subject matter because the examples given exemplify an opposite ratio between the non-ionic surfactant and the cationic polymer. While the examples of Tartakovsky do show an opposite type of ratio between the two components, the reference as a whole teaches ranges of these two components that overlap with the ranges of these components in the claims. As stated above, due to this overlap, one of ordinary skill in the art could have arrived at the claimed ratios through routine experimentation. The reference is used for more than the examples that it provides.

Applicants argue that the non-ionic surfactant is an optional ingredient in the Tartakovsky composition and therefore, one of ordinary skill in the art would have had no knowledge to vary its concentration within the composition in order to improve the effectiveness of the dishwashing detergent. While Tartakovsky does mention that the surfactants can be optional, the reference spends pages discussing the types of surfactants useful to the invention and teaches that it is preferred that they are added to the composition in the above listed range. Additionally, the non-ionic surfactant is even listed in the examples as part of the formulation. Moreover, it is well known in the detergent field that surfactants are desired because of their amphiphilic properties and their concentration would affect the effectiveness of the dishwashing detergent.

With respect the ratio of the non-ionic surfactant and the cationic polymer being a result effective variable, even if the ratio per se is not a result effective variable, the concentration of each of the two components is. Tartakovsky teaches each of the claimed components in ranges that overlap the claimed ranges of each. Therefore, each of these ranges can be optimized to achieve a good balance between the anti-corrosion effects of the polymer and the wetting effects of the surfactant and arrive at the claimed ratio.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Correspondence

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Angela C. Scott whose telephone number is (571) 270-3303. The examiner can normally be reached on Monday through Friday, 8:30am to 5:00pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mark Eashoo can be reached on (571) 272-1197. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/A. C. S./
Examiner, Art Unit 1796

/David Wu/
Supervisory Patent Examiner, Art Unit 1796